

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 1015631276  
Source: TFWJP  
Date Processed by STIC: 1/13/06

***ENTERED***



IFWP

**RAW SEQUENCE LISTING**  
PATENT APPLICATION: US/10/563,276

DATE: 01/13/2006  
TIME: 09:52:09

Input Set : A:\H-33271 SEQLIST.TXT  
Output Set: N:\CRF4\01132006\J563276.raw

4 <110> APPLICANT: dos Santos, Nuno Miguel Simoes  
5 do Vale, Ana Maria Silva  
6 Teixeira da Silva, Manuel Alexandre  
7 da Silva Azevedo, Jorge Eduardo  
8 Novartis AG  
10 <120> TITLE OF INVENTION: Protein from Photobacterium damselae and  
11 use thereof  
13 <130> FILE REFERENCE: VA/H-33271  
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/563,276  
C--> 15 <141> CURRENT FILING DATE: 2006-01-04  
15 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/008464  
16 <151> PRIOR FILING DATE: 2004-07-28  
18 <150> PRIOR APPLICATION NUMBER: GB0317733.4  
19 <151> PRIOR FILING DATE: 2003-07-29  
21 <160> NUMBER OF SEQ ID NOS: 6  
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
25 <210> SEQ ID NO: 1  
26 <211> LENGTH: 1542  
27 <212> TYPE: DNA  
28 <213> ORGANISM: Photobacterium damselae subsp. piscicida  
30 <400> SEQUENCE: 1  
31 atgacagcaa tattttctct agccataaac tcaaatttg tgtagcgaa caacgataaa 60  
32 ccagatgcaa gcgatgacaa gtacgcagac tacgtggac gtcttaggtc ggaacatcca 120  
33 ctaaacccata ctcagatcat tgaactttcc tctgcagttt cgagggctgt ccttcttagt 180  
34 tacccaaata taatagaccc atacaccgct gcagcaactg aatatacggt gatcgatgct 240  
35 ttatttcatt cgcctaccc ttgcacatatac gtttcttttgc tcttcataa tcagcaagag 300  
36 aaccttggtc atattcgata tactaatgaa tatgaaatata acaataatcg cgaagatgag 360  
37 ttctcccttag tgagcgaggtaa aagctacgac gatataaaaaa gctctaattgc tcagcaagtt 420  
38 cccctagtttgc cattttatgaa agcgcgagag gaccgcgcga cggcgcacgca tatcgtaaat 480  
39 atgggtgttag ctcctagtttgc tttttctggc agatatagtt ggtggcaaga agcattaaatc 540  
40 catgaaatttgc ttcatcacgt tacaggctct agtgataactc atgaaagaaaa taagcaaggg 600  
41 cctactgaaa tttagctca aatggtcgcg gcggaaacttc attgggcgtat accaaccctt 660  
42 aaaggatatt cagatcctgc gagggtcgaa gcgatacaag agcgcgattt ccactccttgc 720  
43 ttgaatatgt tccagagaca cggcagtggaa tttaggtttc tggcaccatc attagctacg 780  
44 attgcggaaatggc gtaagaaagc ttgcctgac ttgcggcaccc tgacccctttt ttgctcgaa 840  
45 ggtatttagca gttttcctaa atatcccgat cacgatgtat atttcaacgg gggcggcgcc 900  
46 tttttctcc ctagcgcttag cgccgacagt tcagttgaat gcacttttgc tggcaccatc 960  
47 cgaatcgagc ctgttgcataa tttgaagggg ggaatttgc aattaaaaat 1020  
48 gacttcaaaa acctaaattt acgtgttgc cagcttagct ttttgcacgc aaaaaaaaggt 1080  
49 agcggattttt acagaaaaaaa ttgggattct tggaaatcctt ggtatcaagc ttcttcatgg 1140  
50 aagaatggc tcaattccgg tctatatggg tacggccatc atgaaatctga aggaaacctc 1200  
51 atttatttctc catatggcat aacctcaat gatggttcat tcttatttgc ttcttcatcg 1260  
52 aqaaagcata ttaatqacaa cacgaaaggat qacaatttcq tgaagttaaa taacgctaat 1320

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53 tggagttcgt tctactacgc aggtcaaatg tttttgaca aaaacaaaag acctgttagcg 1380  
 54 cttgttatta cggagcctt aaatgctgct tttggcgcag gatggtctta tatttataaa 1440  
 55 gatggaaat ggcactatga agctcaagac gattgggatc agcgtctatt taaagattcg 1500  
 56 accttgcgt tggatccccca cgcgccacaa ttcatattaatt aa 1542  
 58 <210> SEQ ID NO: 2  
 59 <211> LENGTH: 513  
 60 <212> TYPE: PRT  
 61 <213> ORGANISM: Photobacterium damselaе subsp. piscicida  
 63 <400> SEQUENCE: 2  
 64 Met Thr Ala Ile Phe Ser Leu Ala Ile Asn Ser Asn Phe Val Leu Ala  
 65 1 5 10 15  
 66 Asn Asn Asp Lys Pro Asp Ala Ser Asp Asp Lys Tyr Ala Asp Tyr Val  
 67 20 25 30  
 68 Val Arg Leu Gly Ser Glu His Pro Leu Asn His Thr Gln Ile Ile Glu  
 69 35 40 45  
 70 Leu Ser Ser Ala Val Ser Arg Ala Val Leu Leu Ser Tyr Pro Asn Ile  
 71 50 55 60  
 72 Ile Asp Arg Tyr Thr Ala Ala Ala Thr Glu Tyr Thr Val Ile Asp Ala  
 73 65 70 75 80  
 74 Leu Phe His Ser Pro Thr Phe Arg His Ile Val Ser Phe Gly Leu His  
 75 85 90 95  
 76 Asn Gln Gln Glu Asn Leu Gly His Ile Arg Tyr Thr Asn Glu Tyr Glu  
 77 100 105 110  
 78 Ile Asn Asn Asn Arg Glu Asp Glu Phe Ser Leu Val Ser Glu Val Ser  
 79 115 120 125  
 80 Tyr Asp Asp Ile Lys Ser Ser Asn Ala Gln Gln Val Pro Leu Val Ala  
 81 130 135 140  
 82 Phe Tyr Glu Ala Arg Glu Asp Arg Ala Thr Gly Thr Pro Ile Val Asn  
 83 145 150 155 160  
 84 Met Gly Val Ala Pro Ser Leu Phe Ser Gly Arg Tyr Ser Trp Trp Gln  
 85 165 170 175  
 86 Glu Ala Leu Ile His Glu Ile Val His His Val Thr Gly Ser Ser Asp  
 87 180 185 190  
 88 Thr His Glu Glu Asn Lys Gln Gly Pro Thr Glu Ile Leu Ala Gln Met  
 89 195 200 205  
 90 Val Ala Ala Glu Leu His Trp Ala Ile Pro Thr Phe Lys Gly Tyr Ser  
 91 210 215 220  
 92 Asp Pro Ala Arg Val Glu Ala Ile Gln Glu Arg Asp Phe His Ser Leu  
 93 225 230 235 240  
 94 Leu Asn Met Phe Gln Arg His Gly Ser Glu Leu Gly Phe Leu Phe Thr  
 95 245 250 255  
 96 Arg Leu Ala Thr Ile Ala Lys Gly Lys Lys Ala Ser Pro Asp Phe Gly  
 97 260 265 270  
 98 Thr Leu Thr Ser Phe Cys Ser Glu Gly Ile Ser Ser Phe Pro Lys Tyr  
 99 275 280 285  
 100 Pro Asp His Asp Asp Asp Phe Asn Gly Gly Ala Phe Phe Leu Pro  
 101 290 295 300  
 102 Ser Ala Ser Ala Asp Ser Ser Val Glu Cys Thr Phe Asp Val Leu Asn  
 103 305 310 315 320

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104 Arg Ile Glu Pro Val Asp Asp Ser Ile Lys Phe Glu Gly Gly Asn Leu  
105 325 330 335  
106 Leu Ile Lys Asn Asp Phe Lys Asn Leu Asn Leu Arg Val Ala Gln Leu  
107 340 345 350  
108 Ser Phe Leu Asn Ala Lys Lys Gly Ser Gly Phe Tyr Arg Lys Asn Trp  
109 355 360 365  
110 Asp Ser Trp Lys Ser Trp Tyr Gln Ala Ser Ser Trp Lys Asn Gly Leu  
111 370 375 380  
112 Asn Ser Gly Leu Tyr Gly Tyr Gly His Asp Glu Ser Glu Gly Asn Leu  
113 385 390 395 400  
114 Ile Tyr Ser Pro Tyr Gly Ile Thr Phe Asn Asp Gly Ser Phe Ser Ile  
115 405 410 415  
116 Gly Phe Ser Ser Arg Lys His Ile Asn Asp Asn Thr Lys Asp Asp Asn  
117 420 425 430  
118 Phe Val Lys Leu Asn Asn Ala Asn Trp Ser Ser Phe Tyr Tyr Ala Gly  
119 435 440 445  
120 Gln Met Phe Phe Asp Lys Asn Lys Arg Pro Val Ala Leu Val Ile Thr  
121 450 455 460  
122 Glu Pro Leu Asn Ala Ala Phe Gly Ala Gly Trp Ser Tyr Ile Tyr Lys  
123 465 470 475 480  
124 Asp Gly Lys Trp His Tyr Glu Ala Gln Asp Asp Trp Asp Gln Arg Leu  
125 485 490 495  
126 Phe Lys Asp Ser Thr Leu Ser Leu Asp Pro His Ala Pro Gln Phe Ile  
127 500 505 510  
128 Asn  
132 <210> SEQ ID NO: 3  
133 <211> LENGTH: 18  
134 <212> TYPE: PRT  
135 <213> ORGANISM: Photobacterium damselaе subsp. piscicida  
137 <400> SEQUENCE: 3  
138 Asn Asn Asp Lys Pro Asp Ala Ser Asp Asp Lys Tyr Ala Asp Tyr Val  
139 1 5 10 15  
140 Val Arg  
144 <210> SEQ ID NO: 4  
145 <211> LENGTH: 21  
146 <212> TYPE: PRT  
147 <213> ORGANISM: Photobacterium damselaе subsp. piscicida  
149 <400> SEQUENCE: 4  
150 Tyr Thr Ala Ala Ala Thr Glu Tyr Thr Val Ile Asp Ala Leu Phe His  
151 1 5 10 15  
152 Ser Pro Thr Phe Arg  
153 20  
156 <210> SEQ ID NO: 5  
157 <211> LENGTH: 20  
158 <212> TYPE: DNA  
159 <213> ORGANISM: Artificial Sequence  
161 <220> FEATURE:  
162 <223> OTHER INFORMATION: P4 primer  
164 <400> SEQUENCE: 5

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165 ggccatgatg aatctgaagg

20

167 &lt;210&gt; SEQ ID NO: 6

168 &lt;211&gt; LENGTH: 22

169 &lt;212&gt; TYPE: DNA

170 &lt;213&gt; ORGANISM: Artificial Sequence

172 &lt;220&gt; FEATURE:

173 &lt;223&gt; OTHER INFORMATION: T7 primer

175 &lt;400&gt; SEQUENCE: 6

176 gtaatacgac tcactatagg gc

22

**VERIFICATION SUMMARY**

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TIME: 09:52:10

Input Set : A:\H-33271 SEQLIST.TXT

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L:15 M:270 C: Current Application Number differs, Replaced Current Application No

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date